

**MATERIAL SAFETY DATA SHEET**  
**Avenger AG® Burndown Herbicide**

MSDS DATE: 08/22/2011

**MATERIAL SAFETY DATA SHEET**  
**For Avenger AG® Burndown Herbicide**

**Emergency Phone Numbers:**

Cutting Edge Formulations: (678) 546-5009  
CHEMTREC 24 Hour Number (800) 424-9300

**Section 1 –IDENTIFICATION**

PRODUCT NAME: Avenger AG® Burndown Herbicide

**Section 2 – INGREDIENT INFORMATION**

Avenger AG Burndown Herbicide consists of:  
d-Limonene: 55% (CAS Number: 5989-27-5)  
Castor Oil: 5 to 15%  
Emulsifiers: 25 to 30%

**Section 3 –HEALTH HAZARDS IDENTIFICATION**

**Health Hazards:** Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

**Signs and Symptoms of Exposure:** Product may be irritating to the skin, eyes, nose and throat.

**Medical Conditions Generally Aggravated by Exposure:** Persons with allergies or pre-existing skin conditions should avoid contact with this product.

**Emergency & First Aid Procedures :**

**Eyes:** Remove contact lenses at once. Flush with water for at least 15 minutes.

**Skin:** Wash affected area with copious amounts of soap and water. If irritation develops, seek medical attention.

**Ingestion:** Seek medical attention immediately. Do not induce vomiting. Rinse mouth with water, then drink one glass of water. Do not leave victim unattended. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness, or is convulsing.

**Inhalation:** If symptoms of overexposure are experienced, evacuate to fresh air.

**If any symptoms persist, seek medical attention.**

The toxicity parameters of the primary ingredient, d-Limonene, are as follows:

It is not acutely toxic.

Oral: LD50 >5 g/kg, rabbit

Dermal: LD50 >5 g/kg, rabbit

Skin: The skin irritancy of limonene in guinea pigs and rabbits is considered moderate and low, respectively.

Inhalation: LC50 >1000 ppm

Hazardous Materials Identification System - HMIS:

1 Health Hazard - Mild skin irritant

2 Flammability - Flashpoint 123°F (50°C), as determined by TAG Closed Cup

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0 Reactivity - Stable

G Protection - Safety glasses, gloves

This substance contains no materials subject to the reporting requirements of SARA TITLE III SECTION 313.

Chronic Toxicity: Not listed as a carcinogen (OSHA, NTP, IARC, or ACGIH)

Ecotoxicological Information: Product may be toxic to aquatic organisms.

### Section 4 –PHYSICAL DATA

Appearance: Clear, colorless liquid

Odor: Orange or lemon-lime aroma

Specific Gravity: 0.886 g/ml (7.40 lb./gal) at 21°C

Flashpoint: 123°F (50°C), as determined by TAG Closed Cup

pH: aqueous mixture containing 1% v/v of Concentrate has a pH of 6 at 73°F (23°C)

Viscosity: 6.0 cps (#2 spindle at 30 RPM, at 21°C)

### Section 5 – FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** 123°F (52°C)

**Extinguishing Media:** Carbon dioxide, foam or dry chemical

**Special Fire Fighting Procedures:** SCBA recommended. Smother to exclude air. Do not use water. Handle as an oil fire.

**Unusual Fire and Explosive Hazards:** Combustible liquid. Keep away from heat, sparks, and open flame.

**Hazardous Decomposition Materials:** Smoke may be acrid and the fumes may be irritating. Burning generates CO, CO<sub>2</sub>, and smoke.

**Conditions to Avoid for Stability:** Avoid temperatures over 122°F (50°C)

### Section 6 – SPILL OR LEAK PROCEDURES

**Steps to be Taken if Material is Released or Spilled:** Use protective gloves to avoid skin contact. Small spills can be wiped up. Large spills should be absorbed by dirt, sand, or other suitable absorbents for disposal.

### Section 7 –SPECIAL PROTECTION INFORMATION

Eye Protection: Safety goggles or glasses suggested.

Skin Protection: Oil resistant gloves.

Appropriate Hygienic Practices: Wash thoroughly after handling. Launder contaminated clothing before re-use.

### Section 8 – SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Usual precautions for combustible liquids.

### Section 9 – REGULATORY INFORMATION

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Avenger AG is registered for use (EPA Registration Number 82052-4) as a herbicide by the U.S. Environmental Protection Agency (EPA).

### Section 10 – TRANSPORTATION INFORMATION

TDG Status: Hazardous DOT Label/Placard [exemption § 173.150(f) applies:  
IMO Status: Hazardous Highway/Rail: per requirements for Combustible Liquids  
IATA Status: Hazardous Air/Ship: per requirements for Flammable Liquids

#### SHIPPING CLASSIFICATION:

Proper Shipping Name: TERPENE HYDROCARBONS, N.O.S.

Hazard Class: 3

Identification No.: UN2319

Packing Group: III

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

### Section 11 – ADDITIONAL INFORMATION

National Fire Protection Association Hazard Ratings - NFPA(R):

- 1 Health Hazard - Slight
- 2 Flammability - Moderate
- 0 Reactivity - Minimal

Key Legend Information:

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety and Health Administration

NTP National Toxicology Program

IARC International Agency for Research on Cancer 4

The information contained herein is based on current knowledge and experience: no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information obtained by the user. No warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment. This information is furnished upon the condition the person receiving it shall determine the suitability for the particular purpose. This MSDS is to be used as a guideline for safe work practices and emergency response.

**Manufactured by:**  
**Cutting Edge Formulations, Inc.**  
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